



Looking for Technology Integration (LoFTI)

Purpose: LoFTI is a tool to aid in the observation of technology integration into teaching and learning. The data gathered through the use of this instrument should be helpful in building-level staff members as they plan and/or provide professional development in instructional technology.

Further development of the Looking for Technology Integration (LoFTI) to make it mobile and interactive is under way with funding from Lenovo.



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1. Please enter the date and time:

Date (mm/dd/yyyy): _____

Time (hh:mm): _____

2. Observer Name: _____**3. Which school is being observed?** _____**4. Teacher Name:** _____**5. Grade level:**☐ 9☐ 10☐ 11☐ 12☐ 13**6. What track is this class?**☐ Special Education☐ Remedial☐ General Education☐ Honors☐ Advanced Placement☐ Other (please specify): _____**7. Is technology in use?**☐ Yes☐ No**8. How many students are...**

In class? _____

Using technology? _____

Comments:

9. Student Arrangement:

- ☐ Tables, Centers, Pods
- ☐ Circle or U
- ☐ Cubicles
- ☐ Rows
- ☐ Other (please specify): _____

10. Learning Environment:

- ☐ Auditorium
- ☐ Cafeteria
- ☐ Classroom
- ☐ Gymnasium
- ☐ Lab
- ☐ Media center
- ☐ Multi-purpose room
- ☐ Outside
- ☐ Virtual environment
- ☐ Other (please specify): _____

11. Student Grouping:

- ☐ Independent work
- ☐ Learning centers
- ☐ Pairs
- ☐ Small groups
- ☐ Whole groups
- ☐ Workshops
- ☐ Other (please specify): _____

12. Instructional Collaborators:

- ☐ Administrator
- ☐ Assistant
- ☐ Curriculum specialist
- ☐ Media coordinator
- ☐ Other teacher
- ☐ Outside consultant
- ☐ Special ed teacher
- ☐ Student
- ☐ Technology facilitator
- ☐ Volunteer
- ☐ None
- ☐ Other (please specify): _____

13. Core Subject:

- ☐ Arts
- ☐ Career technical
- ☐ Computer/technology skills
- ☐ English/Language arts
- ☐ English as a second language
- ☐ Guidance
- ☐ Health
- ☐ Physical education
- ☐ Library/media skills
- ☐ Mathematics
- ☐ Foreign languages
- ☐ Science
- ☐ Social studies
- ☐ Other (please specify): _____

Technology includes such things as computers, laptops, software, iPods, iPads, interactive whiteboards, digital cameras, document cameras, video cameras, the Internet, clickers, 3D virtual space, etc.

14. Teacher Activities:

(Check only if technology is being used for...)

- | | |
|--|--|
| <input type="checkbox"/> Activating prior knowledge | <input type="checkbox"/> Providing feedback |
| <input type="checkbox"/> Assessment | <input type="checkbox"/> Questioning |
| <input type="checkbox"/> Cues, questions, and advance organizers | <input type="checkbox"/> Reinforcing/recognition |
| <input type="checkbox"/> Demonstration | <input type="checkbox"/> Scaffolding |
| <input type="checkbox"/> Differentiated instruction | <input type="checkbox"/> Setting objectives |
| <input type="checkbox"/> Facilitation (guiding) | <input type="checkbox"/> Summarizing |
| <input type="checkbox"/> Lecture | <input type="checkbox"/> Other (please specify): _____ |

15. Assessment Methods:

(Check only if technology is being used)

- | | |
|--|--|
| <input type="checkbox"/> Oral response | <input type="checkbox"/> Selected response |
| <input type="checkbox"/> Product (e.g., project with rubric) | <input type="checkbox"/> Written response |
| <input type="checkbox"/> Performance (e.g., presentation, demonstration) | <input type="checkbox"/> Other (please specify): _____ |

16. Technology is being used as a tool for...*(Check either Teacher or Student, or both)*

	Teacher	Students
Problem-Solving (e.g., graphing, decision support, design)	<input type="checkbox"/>	<input type="checkbox"/>
Communication (e.g., document preparation, email, presentation, web development)	<input type="checkbox"/>	<input type="checkbox"/>
Information Processing (e.g., data manipulation, writing, data tables)	<input type="checkbox"/>	<input type="checkbox"/>
Research (e.g., collecting information or data)	<input type="checkbox"/>	<input type="checkbox"/>
Personal Development (e.g., e-learning, time management, calendar)	<input type="checkbox"/>	<input type="checkbox"/>
Group Productivity/Cooperative Learning (e.g., collaboration, planning, document sharing)	<input type="checkbox"/>	<input type="checkbox"/>
Formative Assessment	<input type="checkbox"/>	<input type="checkbox"/>
Summative Assessment	<input type="checkbox"/>	<input type="checkbox"/>
Brainstorming	<input type="checkbox"/>	<input type="checkbox"/>
Computer-assisted instruction	<input type="checkbox"/>	<input type="checkbox"/>
Face to face classroom discussion	<input type="checkbox"/>	<input type="checkbox"/>
Face to face group discussion	<input type="checkbox"/>	<input type="checkbox"/>
Asynchronous discussion	<input type="checkbox"/>	<input type="checkbox"/>
Drill and practice	<input type="checkbox"/>	<input type="checkbox"/>
Generating and testing hypotheses	<input type="checkbox"/>	<input type="checkbox"/>
Identifying similarities and differences	<input type="checkbox"/>	<input type="checkbox"/>
Project-based activities	<input type="checkbox"/>	<input type="checkbox"/>
Recitation	<input type="checkbox"/>	<input type="checkbox"/>
Summarizing and note-taking	<input type="checkbox"/>	<input type="checkbox"/>

17. Technology hardware is in use by...
(Check either Teacher or Student, or both)

	Teacher	Students
Assistive Technology	<input type="checkbox"/>	<input type="checkbox"/>
Audio (e.g., speakers, microphone)	<input type="checkbox"/>	<input type="checkbox"/>
Art/Music (e.g., drawing tablet, musical keyboard)	<input type="checkbox"/>	<input type="checkbox"/>
Imaging (e.g., camcorder, film or digital camera, document camera, scanner)	<input type="checkbox"/>	<input type="checkbox"/>
Display (e.g., digital projector, digital white board, television, TV-link, printer)	<input type="checkbox"/>	<input type="checkbox"/>
Media Storage / Retrieval (e.g., print material, DVD, VCR, external storage devices)	<input type="checkbox"/>	<input type="checkbox"/>
Math / Science / Technical (e.g., GPS, probeware, calculator, video microscope)	<input type="checkbox"/>	<input type="checkbox"/>
Desktop computer	<input type="checkbox"/>	<input type="checkbox"/>
Laptop computer (including tablets)	<input type="checkbox"/>	<input type="checkbox"/>
Other (please specify): _____	<input type="checkbox"/>	<input type="checkbox"/>

18. Technology software is in use by...*(Check either Teacher or Student, or both)*

	Teacher	Students
Administrative (e.g., grading, record-keeping)	<input type="checkbox"/>	<input type="checkbox"/>
Assessment / Testing	<input type="checkbox"/>	<input type="checkbox"/>
Assistive (e.g., screen reader)	<input type="checkbox"/>	<input type="checkbox"/>
Computer-Assisted Instruction / Integrated Learning System	<input type="checkbox"/>	<input type="checkbox"/>
Thinking tools (e.g. visual organizer, simulation, modeling, problem-solving)	<input type="checkbox"/>	<input type="checkbox"/>
Hardware-Embedded (e.g. digital white board, GPS/GIS, digital interactive response system)	<input type="checkbox"/>	<input type="checkbox"/>
Multimedia (e.g., digital video editing)	<input type="checkbox"/>	<input type="checkbox"/>
Productivity Software (e.g., database, presentation, spreadsheet, word processing)	<input type="checkbox"/>	<input type="checkbox"/>
Programming or web scripting (e.g., Javascript, PHP, Visual Basic)	<input type="checkbox"/>	<input type="checkbox"/>
Graphics / Publishing (e.g., page layout, drawing/painting, CAD, photo editing, web publishing)	<input type="checkbox"/>	<input type="checkbox"/>
Subject-specific software	<input type="checkbox"/>	<input type="checkbox"/>
Web Browser (e.g., MS Internet Explorer, Netscape, Firefox)	<input type="checkbox"/>	<input type="checkbox"/>
Web Applications: Course management software (DyKnow, etc.)	<input type="checkbox"/>	<input type="checkbox"/>
Web Applications: Database systems	<input type="checkbox"/>	<input type="checkbox"/>
Web Applications: Discussion boards	<input type="checkbox"/>	<input type="checkbox"/>
Web Applications: Libraries, E-publications	<input type="checkbox"/>	<input type="checkbox"/>
Web Applications: Search engine	<input type="checkbox"/>	<input type="checkbox"/>
Web Applications: Video, voice, or real-time text conference	<input type="checkbox"/>	<input type="checkbox"/>
Web Applications: Web logs, blogs	<input type="checkbox"/>	<input type="checkbox"/>
Web Applications: Web mail	<input type="checkbox"/>	<input type="checkbox"/>
Web Applications: Wiki	<input type="checkbox"/>	<input type="checkbox"/>
NC-Specific Web Resources: Learn NC	<input type="checkbox"/>	<input type="checkbox"/>
NC-Specific Web Resources: NC Wise Owl	<input type="checkbox"/>	<input type="checkbox"/>
NC-Specific Web Resources: SAS in School	<input type="checkbox"/>	<input type="checkbox"/>
Other (please specify): _____	<input type="checkbox"/>	<input type="checkbox"/>

For the following item, please indicate the percentage of students in the classroom showing positive student engagement.

19. Student engagement is shown by...

	100%	80%	60%	40%	20%	0%	
Sustained behavioral involvement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Tendency to give up easily in the face of challenges
Positive emotional tone—cheerful, calm, communicative	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Negative emotional tone—boredom, depression, anxiety, anger, withdrawal, or rebellion
Exertion of effort and concentration	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Laziness, distraction

20. How essential was technology to the teaching and learning activities?

- ☐ No technology present
- ☐ Not needed; other approaches would be BETTER.
- ☐ Somewhat useful; other approaches would be AS EFFECTIVE.
- ☐ Useful; other approaches would NOT BE AS EFFECTIVE.
- ☐ Essential; the lesson could not be done without it.

Comments:

21. During each 3-minute period, was technology in use by students and/or teachers, and was the time spent with technology used for teaching and learning (as opposed to recreation or routine tasks such as boot-up and log-on)?

Technology is:	:00-:03	:03-:06	:06-:09	:09-:12	:12-:15	:15-:18	:18-:21	:21-:24	:24-:27	:27-:30
In use by students	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Used for learning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
In use by teachers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Used for teaching	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

22. Estimated time technology used:

Total minutes technology used by students _____

Minutes students used for learning _____

Total minutes technology used by teachers _____

Minutes teachers used for teaching _____

23. Classroom Agenda:

24. Other comments regarding teacher (e.g. demeanor, comfort with technology, interactions with students):

25. Other comments regarding students (e.g. comfort with technology, peer interactions):

26. Other comments regarding learning environment:

27. Please enter the time:

Time (hh:mm): _____

Definition of terms for Teacher Activities

1. Activating Prior Knowledge:

- Reminds the learner what they already know
- Prior knowledge provides a framework or scheme through which new information is actively assimilated.

2. Assessment:

- Observed demonstration of knowledge
- Involves some formal assessment scale: rubric, grading scale
- Examples: portfolios, exams (test or quizzes), reflections

3. Cues, Questions, Advanced Organizers:

- Used to help assist students to transfer or apply what they know to what they are learning
- Provide concepts and principles to the students directly – help the learner to integrate new materials with what they already know; they "prepare" the learner for new information.

4. Demonstration:

- Method of teaching by example rather than simple explanation

5. Differentiated Instruction

- Involves teachers using a variety of instructional strategies that address diverse student learning needs
- In differentiated instruction students are placed at the center of teaching and learning and student needs drive instructional planning.

6. Facilitating (Guiding):

- Providing support and direction for students

7. Lecture:

- Oral presentations intended to present information or teach students about a particular subject or topic.

8. Providing Feedback

- Telling students how they did in relation to specific levels of knowledge
- Taking time to write comments, point out omissions, and explain thinking when reviewing student work.

9. Questioning

- Finding out what students already know (or do not know) and then connecting to students' existing knowledge base.

10. Reinforcing Effort and Providing Recognition

- Having students keep a log of their weekly efforts and achievements, reflect on it periodically, and even mathematically analyze the data;
- Finding ways to personalize recognition; giving awards for individual accomplishments.

11. Scaffolding

- Supports provided to facilitate the learner's development.
- The scaffolds facilitate a student's ability to build on prior knowledge and internalize new information. Scaffolding may include assistance with planning, organizing, doing and/or reflecting on the specific task. Such assistance is best.

12. Setting Objectives

- Setting a core goal for a unit and desired outcomes for learning.

13. Summarizing

- Asking students to analyze a subject to expose what's essential and then put it in their own words

Definition of terms for Student Activities

1. **Problem-solving** – analyze, coming up with a solution
2. **Presentation** - a performance, exhibition, or demonstration put on before an audience
3. **Project-based activities**
 - Results in a product or performance
 - Based on essential question
 - Multidisciplinary – like the “real world”
 - Student-directed – students “own” their work
 - Students collaborate
 - Authentic Technology use (authentic uses (e.g., collecting, processing, presenting information)
 - Long Term
4. **Recitation**
 - The public reading aloud of something or reciting of something from memory, especially poetry
 - Oral response by a student to questions on previously taught material
5. **Summarizing and note-taking** - to give a shortened version of something that has been said or written, stating its main points
6. **Assessment**
7. **Brainstorming:**
 - Group creativity designed to generate a large number of ideas for the solution to a problem.
8. **Computer-assisted instruction:**
 - Most often refers to drill-and-practice, tutorial, or simulation activities offered either by themselves or as supplements to traditional, teacher directed instruction
9. **Cooperative learning:**
 - Students interact in purposely structured heterogeneous group to support the learning of oneself and others in the same group.
10. **Classroom discussion**
 - Whole class discussion of a topic
11. **Drill and practice:**
 - Promotes the acquisition of knowledge or skill through repetitive practice
12. **Generating and testing hypotheses:**
 - Asking students to predict what will happen and then conducting a test/experiment
13. **Identifying similarities and differences** – comparisons, contrasts